DOCUMENT RESUME

ED 471 940 EC 309 343

AUTHOR	Chambers, Jay G.; Parrish, Thomas B.; Lam, Irene
TITLE	What Are We Spending on Transportation Services for Students with Disabilities, 1999-2000? Report. Special Education Expenditure Project (SEEP).
INSTITUTION	American Institutes for Research in the Behavioral Sciences, Palo Alto, CA. Center for Special Education Finance.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
REPORT NO	SEEP-R-02-03
PUB DATE	2002-09-00
NOTE	21p.
CONTRACT	ED99CO0091
AVAILABLE FROM	For full text: http://www.seep.org.
PUB TYPE	Reports - Research (143)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	*Bus Transportation; Cost Estimates; *Costs; *Disabilities; Educational Finance; Educational Trends; Elementary Secondary Education; *Expenditure per Student; *Financial Support; *Student Transportation; Trend Analysis

ABSTRACT

Part of a series of reports based on descriptive information on more than 9,000 special education students derived from the Special Education Expenditure Project data for the 1999-2000 school year, this report provides information on spending for transportation services for students with disabilities. Major findings include: (1) during the 1999-2000 school year, the nation's school districts spent around $13.1 billion on home-to-school and school-to-school transportation services for all K-12 students in public schools and of this, total expenditure for special education is estimated to be about $3.7 billion; (2) the regular education transportation expenditure per pupil is an estimated $442, while the special education transportation expenditure per pupil is approximately $4,418; (3) about 1.97 million or 33% of students with disabilities receive transportation services provided by their district; (4) the number of students receiving special transportation has declined from 30% in 1985-86 to 14% in 1999-2000; (5) since 1985-86, the special transportation expenditure per pupil in constant dollars has increased from about $2,463 to $4,418, an increase of 80%, while the per pupil spending on regular transportation rose from $365 to $442, an increase of 20%; and (6) special transportation spending per pupil is nearly ten times greater than spending on regular transportation. (CR)

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SEEP

Special Education Expenditure Project

Center for Special Education Finance
CSEF

What Are We Spending on Transportation Services for Students with Disabilities, 1999–2000?

Report #02-03
September 2002

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Submitted to: United States Department of Education,
Office of Special Education Programs

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Acknowledgements

Primary support for this research comes from the U.S. Department of Education, Office of Special Education Programs (OSEP). The authors wish to express their appreciation for the guidance and suggestions of Louis Danielson in his capacity as Director, Research to Practice Division, Office of Special Education Programs, and Scott Brown in his capacity as Project Officer for the Special Education Expenditure Project (SEEP).

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SEEP Reports

This document is a part of a series of reports based on descriptive information derived from the Special Education Expenditure Project (SEEP), a national study conducted by the American Institutes for Research (AIR) for the U.S. Department of Education, Office of Special Education Programs (OSEP). SEEP is the fourth project sponsored by the U.S. Department of Education and its predecessor, the Department of Health, Education and Welfare, in the past 40 years to examine the nation's spending on special education and related services. See Kakalik, Furry, and Carney (1981), Moore, Strang, Schwartz, and Braddock (1988), and Rossmiller, Hale, and Frohreich (1970).

The SEEP reports are based on analyses of extensive data for the 1999-2000 school year. The SEEP includes 23 different surveys to collect data at the state, district, and school levels. Survey respondents included state directors of special education, district directors of special education, district directors of transportation services, school principals, special education teachers and related service providers, regular education teachers, and special education aides. Survey responses were combined with other requested documents and data sets from states, schools, and districts to create databases that represented a sample of more than 9,000 students with disabilities, more than 5,000 special education teachers and related service providers, approximately 5,000 regular education teachers, more than 1,000 schools, and well over 300 local education agencies.

The series of SEEP reports will provide descriptive information on the following issues:

- What are we spending on special education services for students with disabilities in the U.S.?
- How does special education spending vary across types of public school districts?
- What are we spending on due process for students with disabilities?
- What are we spending on transportation services for students with disabilities?
- How does education spending vary for students by disability and what factors explain differences in spending by disability?
- What role do functional abilities play in explaining spending variations for students with disabilities?
- What are we spending on preschool programs for students with disabilities?
- Who are the teachers and related service providers who serve students with disabilities?
- How are special education teaching assistants used to serve students with disabilities?
- What are we spending on special education services in different types of schools?
- How does special education spending vary across states classified by funding formula, student poverty, special education enrollment levels, and income levels?

One of the SEEP reports will also be devoted to describing the purpose and design of the study.

Table of Contents

Highlights v
I. Introduction 1
Special versus Regular Transportation Services 1
Data Sources 2
II. Findings 2
Spending on Transportation 3
Number of Students with Disabilities Receiving Transportation Services 3
Changes in Spending Over Time 5
III. Explanation of Analysis 7
IV. Summary and Conclusions 8

Exhibits

Exhibit 1. Percentage of Students with Disabilities Receiving Transportation Services, 1999-2000 4
Exhibit 2. Changes in Expenditure Per Pupil on Special Transportation Services from 1985-86 to 1999-2000 Expressed in Constant 1999-2000 Dollars ...6
Exhibit C-1. Percentage of Students With Disabilities Using Transportation to Different Types of Schools and Other Services, 1999-2000 ..... C-1
Exhibit C-2. Percentage and Standard Error of Students With Disabilities Using Transportation to Different Types of Schools and Other Services, 1999-2000 ..... C-2

Appendices

Appendix A. SEEP Samples A-1
Appendix B. Student Database and Estimating Special Transportation Expenditures . B-1
Appendix C. Percentage of Students with Disabilities Using Transportation to Different Types of Schools or Other Services C-1

Highlights

- **Total transportation spending**. During the 1999-2000 school year, the nation's school districts spent around $13.1 billion on home-to-school and school-to-school transportation services for all K-12 students in public schools.

- **Special transportation expenditure**. The total expenditure on *special* transportation services is estimated to be about $3.7 billion. This represents about 28 percent of the total transportation expenditures ($13.1 billion) in the U.S., and approximately seven percent of the total spending on special education services ($50 billion).

- **Per pupil spending.** The *regular* transportation expenditure per pupil is an estimated $442, while the *special* transportation expenditure per pupil is approximately $4,418.

- **Number of students with disabilities receiving transportation services.** About 1.97 million or 33 percent of students with disabilities receive transportation services provided by their district. Of these students, 840,000 (14 percent) receive *special* transportation services, and some 1.1 million students with disabilities (19 percent) receive *regular* transportation services. The number of students receiving special transportation has declined from 30 percent in 1985-86 (Moore et al., 1988) to 14 percent in 1999-2000.

- **Changes in spending over time**. Since 1985-86, the special transportation expenditure per pupil in constant dollars (i.e., actual spending adjusted by the Consumer Price Index) has increased from about $2,463 to $4,418, an increase of 80 percent, while the per pupil spending on regular transportation rose from $365 to $442, an increase of 20 percent.

- **Special versus regular transportation spending**. Special transportation spending per pupil is nearly ten times greater than spending on regular transportation. This represents an increase since 1985-86 when per pupil special transportation was around seven times more than that on regular transportation (Moore et al., 1988).

- **Transportation services and types of schools.** About 26 percent of students with disabilities are transported from home to regular education schools, seven percent to special education schools, while another two percent are transported from one school to another to receive vocational or other special education services.

I. Introduction

In the United States, approximately 57 percent (or 24.3 million) of the K-12 population are transported daily to and from public schools by public school districts (NCES, 2000). In 1999-2000, the nation's school districts spent about $13.1 billion on home-to-school and school-to-school transportation. Exactly how much are districts spending on *special transportation services* for students with disabilities, and how many students with disabilities are receiving these special transportation services? These two questions are the primary focus of this report. Unless otherwise noted, all data provided correspond to the 1999-2000 school year and represent students attending public schools only.[1]

Special versus Regular Transportation Services

While it is the school district's policy to determine whether or not transportation is to be provided to the regular school population, it is also the district's responsibility to decide on a case-by-case basis if a student with a disability requires special transportation services to access educational services (Bluth, 2001). ***Special transportation*** is a "related service" that is specifically designed for and provided to a student with a disability. A special education student may receive regular or special transportation. During the assessment and evaluation of the student's needs, the Individualized Education Program (IEP) team determines whether a student with a disability requires regular or special transportation.

Generally, students with more severe disabilities are transported on special buses that are often equipped with wheelchair lifts and other specialized equipment such as child restraint systems or harnesses. Students with disabilities may also travel on special routes or receive door-to-door service not available to other students. In addition, nurses or special education aides may provide on-board assistance to these students (American Academy of Pediatrics, 2001).

However, not all students with disabilities require special transportation. Depending on the IEP assessments, special education students may also ride regular school buses along with regular education students, with or without supplementary assistance or specialized equipment. The analysis presented in this report assumes that special education students who were reported to be receiving specialized transportation services or equipment (e.g., the assistance of an aide or wheelchair lift) but who were transported to a regular school were receiving *special* transportation services. Students who were reported not to be receiving such special accommodations and who were transported to a regular school were assumed to receive *regular* transportation services.

[1] Data available for this analysis were insufficient to estimate the transportation expenditures for students who attended schools not operated by the public school districts, e.g., non-public schools or other public agencies. Hence, these students were excluded from the report's analysis.

Special transportation is known to be fairly expensive because the services are provided to a small group of students with disabilities, many of whom may require special accommodations or specialized equipment. Moreover, the safety and liability issues involved in transporting these students increase the cost of operating the special bus fleet. Therefore, the need for special transportation services can add substantially to the total expenditures on educating a special education student. In contrast, the cost of transporting students with disabilities who receive regular transportation services and do not require supplementary assistance will be similar to the cost of transporting all other regular education students on the same bus.

Data Sources

Estimates of transportation expenditures and the number of students with disabilities who receive transportation services were derived from the following two SEEP surveys:

- *Information about a Special Education Student* (data compiled into a student database). This survey collected detailed information from special education teachers and related service providers on instructional and support services received by a special education student, including types of transportation services. There were 9,620 students from 344 districts and 7 state special education schools represented in this student database.

- *District Questionnaire, Part IV - Transportation* (data compiled into a district database). This survey collected data from 166 sampled districts on transportation services, expenditures, and the number of students receiving transportation services. The survey asked each district to report expenditures for all home-to-school or school-to-school transportation services for special education students. Districts were asked to include those expenditures required to support transportation for home-to-school or school-to-school transportation services specifically designed for and provided to special education students **only.** The data from the district survey were used to estimate pupil transportation services for all of the districts represented in the student database referred to above in order to estimate total transportation expenditures.

II. Findings

This section presents key findings related to spending on transportation services for students with disabilities and the number of students receiving these services. It also compares recent data on transportation for students with disabilities with data from an earlier expenditure study to assess trends over time.

Spending on Transportation

In the 1999-2000 school year, school districts spent around $13.1 billion on home-to-school and school-to-school transportation services for all K-12 students in public schools.[2] The total expenditure on *special* transportation services is estimated to be about $3.7 billion.[3] This represents over one-fourth (28 percent) of the total transportation expenditures in the U.S. and around seven percent of the total spending on special education services ($50 billion).[4] The total expenditure on students with disabilities who receive *regular* transportation services is around $498 million. The regular transportation expenditure per pupil is estimated to be $442, while the per pupil expenditure for special transportation amounts to $4,418.[5]

Districts spent about $365 million on hiring special education aides to assist students with disabilities on *special* school buses. This represents around 10 percent of the total special transportation expenditures. The spending on aides to assist students with disabilities on *regular* school buses was minimal in comparison at $15 million, or less than one percent of the total spending in special transportation. This suggests that students with disabilities who ride regular school buses are likely students with less severe disabilities and are less likely to require special assistance from aides.

Number of Students with Disabilities Receiving Transportation Services

Exhibit 1 shows that about 1.97 million or 33 percent of all students with disabilities receive transportation services provided by their district. About 840,000 (14 percent) of these students receive *special* transportation services, and some 1.13 million students (19 percent) receive *regular* transportation services. It appears that the percentage of students receiving special transportation has declined substantially from 30 percent in 1985-86 (as noted by Moore et al., 1988) to 14 percent in 1999-2000.

[2] This figure is calculated from the district database by summing the weighted expenditure data from individual districts.

[3] Both the student and district databases were used to estimate the total expenditure in special transportation. Appendix B details the approach used to estimate this set of per pupil and total expenditures on special transportation.

[4] See Chambers, Parrish, and Harr (March 2002).

[5] The standard error for the special transportation estimate is $295.

Exhibit 1. Percentage of Students with Disabilities Receiving Transportation Services, 1999-2000

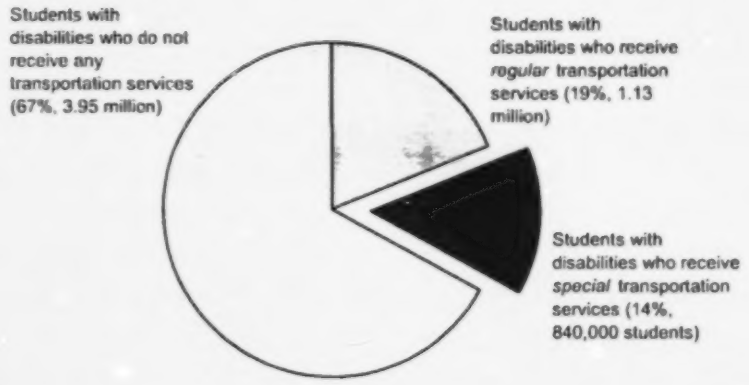
Students with disabilities who do not receive any transportation services (67%, 3.95 million)
Students with disabilities who receive *regular* transportation services (19%, 1.13 million)
Students with disabilities who receive *special* transportation services (14%, 840,000 students)

Exhibit 1 reads: Of the approximately 6 million students with disabilities in the U.S., 1.13 million (19 percent) receive regular district transportation, and 840,000 (14 percent) receive special transportation services.

The data also show that about 26 percent of students with disabilities receiving transportation are transported from home to regular education schools, 7 percent to special education schools, while another 2 percent are transported from one school to another to receive vocational or other special education services (See Appendix C for more details on students with disabilities who receive transportation services to different types of schools as well as other services).

Changes in Spending Over Time

The percentage of students receiving special transportation has dropped by more than half since 1985-86. At the same time, the per pupil expenditure in constant dollars has increased from about $2,463 to $4,418 (an increase of 80 percent), as Exhibit 2 shows.[6] In contrast, the per pupil spending in regular transportation rose from $365 to $442, an increase of 20 percent.[7]

Fewer students received special transportation in 1999-2000 than 15 years ago. The data suggest that perhaps special transportation services are now directed more toward students with severe, low-incidence disabilities. It is also likely that districts are transporting more students with disabilities in regular school buses, along with regular education students, as a result of inclusionary practices.

Moore et al. (1988) noted that in 1985-86, the per pupil expenditure on special transportation was around seven times more than spending on regular transportation. This ratio now appears to be nearly ten to one. It is of interest to note that over the past 15 years, the per pupil expenditure on special transportation seems to be increasing at a faster pace than that of regular transportation (80 percent for per pupil special transportation expenditure compared to 20 percent for per pupil regular transportation expenditure). This may be due to the declining population of students requiring *special* transportation, thus raising the per student expenditure on operating special transportation services. Additional considerations such as the need to provide a safe transportation service to students with disabilities, as well as the requirement to comply with federal, state, and local laws or standards, may contribute to the rising cost of special transportation expenditures.

[6] Moore et al. (1988) reported that 30 percent of students with disabilities received special transportation services at a per pupil expenditure of $1,583. Using the Consumer Price Index (CPI) adjusted to the school year, the per pupil expenditure adjusted to 1999-2000 dollars amounts to $2,463 [(1583/(108.8/169.3), where 169.3 is the CPI for 1999-2000 and 108.8 is the CPI for 1985-86].

[7] Moore et al. (1988) reported that the per pupil spending in regular transportation was $234. Using the Consumer Price Index (CPI) adjusted to the school year, the per pupil expenditure adjusted to 1999-2000 dollars amounts to $365 [(234/(108.8/169.3), where 169.3 is the CPI for 1999-2000 and 108.8 is the CPI for 1985-86].

Exhibit 2. Changes in Expenditure Per Pupil on Special Transportation Services from 1985-86 to 1999-2000 Expressed in Constant 1999-2000 Dollars

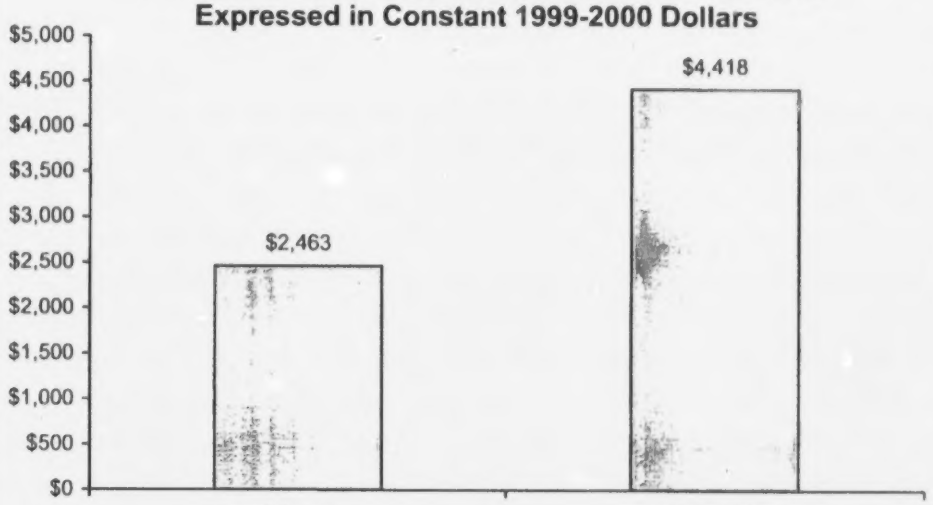

Exhibit 2 reads: Expressed in constant 1999-2000 dollars, special transportation spending per pupil increased from $2,463 in 1985-86 to an average $4,418 in 1999-2000, an increase of approximately 80 percent. (Actual, unadjusted expenditures in 1985-86 were estimated to be $1,583 per pupil.)

III. Explanation of Analysis

Conducting the analysis of transportation expenditures was a challenging undertaking due to the complexity of the topic and the potential limitations of the data. For example, data from the district database allowed us to estimate the total expenditures on regular and special transportation, but did not allow us to estimate the exact number of students receiving special transportation. To obtain this information, we conducted extensive telephone interviews to clarify the data we had received. These interviews also provided further insights into expenditure items generally included under "special transportation." Most often, such expenditures include operations and preventive maintenance of special buses/mini vans (e.g., fuel, insurance and repairs, salaries and benefits of special bus drivers and aides), reimbursement to parents, other assistive or adaptive devices (e.g., car seats, special belts, harnesses), contracts with other private providers such as independent bus companies, and administration costs of the district's special education transportation division. Some districts also provide training to special transportation staff on special education topics and student behavior management, as well as other legal or health related topics. However, districts generally do not include capital costs, amortization, or depreciation of their bus fleet as part of the special transportation expenditure.

The analysis was further complicated by the variety of district accounting practices and transportation programs. Some districts did not keep separate accounting records on regular transportation services or special needs services, and were thus unable to provide a breakdown of expenses for each program. Others indicated that because of the district's inclusion policy, special education students were all transported on regular school buses. In these cases, we assumed that the district incurred no marginal costs on special transportation services since the special education students would receive similar services as their regular education student counterparts. Some districts reported that they either received state subsidies or collaborated with other units (e.g., county, Intermediate Education Units) to provide services, and therefore their expenditures would not represent a complete picture of transportation costs. We did not include these districts in our analyses since they would have underestimated the special transportation spending.

Across the sampled districts, there are variations in special transportation expenditures due to geographical diversity and district transportation policies. For example, some districts reported low special education transportation expenditures because they transported only the part-time students from early childhood programs. In other cases, small travel distances or proximity to the schools lower the operating costs. In contrast, districts with high per pupil special transportation expenditures were usually those in major cities where labor costs are high or those in rural areas where buses travel long distances to transport students. Some districts indicated that special transportation is "very expensive" compared to regular transportation, mainly because of their commitment to provide a safe and individualized service.

IV. Summary and Conclusions

In 1999-2000, districts spent around $3.7 billion on special transportation services, or an average of $4,418 per special education student. This represents about 28 percent of the total spending on transportation ($13.1 billion) for all students in the U.S. The current study shows that special transportation is almost ten times more expensive than regular transportation, whereas 15 years ago, the ratio of special transportation to regular transportation spending was around seven to one (Moore et al., 1988).

However, despite the rising cost of *special* transportation services, the number of students with disabilities who receive these services has declined substantially (from 30 percent in 1985-86 to about 14 percent in 1999-2000). It appears that more students with disabilities are now receiving regular transportation than special transportation. Furthermore, as the number of students receiving special transportation declines, the economies of scale associated with transporting a larger special education populace also diminish, and therefore, the per pupil expenditure for special transportation remains relatively high.

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Appendix A

SEEP Samples

The SEEP surveys were sent to stratified, random samples of respondents (see "SEEP Reports") that included representatives from the 50 states and the District of Columbia. Samples of school districts were selected within each of the states (a minimum of two districts in each state). Larger states included more districts. Intermediate education units (IEUs) were selected from among IEUs serving the districts included in the sample. IEUs were surveyed only if they received funds directly from the state for serving their students and essentially operated independently of the school districts in the region they serve.

Samples of elementary, secondary, and special education schools were selected from among the sampled districts and IEUs (where appropriate). In addition, state special education schools were also sampled for the purposes of this project.

Expanded samples of districts, IEUs, and schools were also selected for SEEP through a series of nine separate contracts with individual states.[8] These states provided additional support for data collection in these expanded samples of districts and schools. These expanded samples are included in the data reported for the national SEEP.

From within the sample schools, SEEP collected data from all special education teachers and related service providers assigned to these schools. In addition, samples of regular education teachers and special education teacher aides were selected from the staff in these schools.

Finally, the special education teachers and related service providers were each asked to select a sample of two students with disabilities from the rosters of students they serve. To prevent the possibility of a student being selected multiple times, the research team developed sample selection procedures so that students were only selected from the most restrictive placement possible for any given student. The sample selection procedures were designed to ensure that the service provider most knowledgeable about any student completed the survey about the student.

The student sample on which many of the analyses are based comes from 1,053 of the 1,767 schools included in our original sample (representing 45 states and the District of Columbia). This sample includes 330 regular local educational agencies, 14 IEUs, and 7 state special education schools. Analysis of the patterns of response suggests that the samples on which these estimates are based do not appear to exhibit any response bias.

[8]These nine states include Alabama, Delaware, Indiana, Kansas, Missouri, New Jersey, New York, Ohio, and Rhode Island.

Appendix B

Student Database and Estimating Special Transportation Expenditures

To derive estimates of special transportation expenditures using the student database as the primary analytical tool, we first calculated a "per pupil expenditure for regular transportation" and a "per pupil special transportation expenditure" from the district database.[9] If the respondent indicated that the student received some form of transportation service (based on the responses to Items 17A-C, *Information About A Special Education Student*), the student would be associated with either a "regular transportation expenditure" or a "special transportation expenditure" derived from the district database.

Because our student survey did not ask whether the student received *special* or *regular* transportation services, we made several assumptions to determine if a special education student was *likely* to receive special transportation services. We assumed that the student received special transportation if the student fit one of the criteria below:

- the student was transported to a special school or to other schools including vocational schools
- the student's family was reimbursed for transporting the student
- the student was transported to a regular education school and required a wheelchair lift or other special arrangements
- the student was transported to a regular education school and was accompanied by an aide
- the student was transported to a regular education school and had a mean functional ability score of over 34 according to the Abilities Index.[10] We selected the cutoff score of 34 because this is the mean score of students who were transported to special schools

[9] A total of 166 districts provided transportation expenditures and the numbers of students receiving transportation services. The "per pupil expenditure for regular transportation" is the total expenditure on regular transportation service divided by the number of students who received regular transportation. The "per pupil expenditure for special transportation" is the total special transportation expenditure divided by the number of students who received special transportation. We imputed per pupil expenditures for districts that did not provide data to us. These estimates allowed us to assign a per pupil transportation expenditure to each student from all districts in our database if the respondent indicated that the student received transportation services.

[10] The Abilities Index was developed by Rune Simeonsson and Donald Bailey of the Frank Porter Graham Child Development Center, University of Carolina, Chapel Hill. This index measures the functional abilities of the student in the following domains: audition, behavior and social skills, intellectual function (thinking and reasoning), limbs (use of hands, arms, and legs), intentional communication (understanding and communicating with others), tonicity (muscle tone), integrity of physical health (overall health), eyes (vision), and structural status (shape, body form, and structure).

If the student was transported to a regular education school and did not fit any of the above criteria, the student was assumed to receive *regular transportation services.* The expenditure on students with disabilities who received regular transportation would be included as part of the spending on regular transportation.

Based on the above assumptions, we found that our districts spent around $3.7 billion on *special* transportation services. The total expenditure was calculated by adding up the individual student's expenditure on special transportation. This does not include the expenditure on students with disabilities who receive *regular* transportation services, which totals approximately $498 million. The per pupil expenditure on special transportation (i.e., $4,418 per special education student) was calculated by dividing the total expenditure on special transportation by the number of students receiving *special* transportation.

Appendix C

Percentage of Students with Disabilities Using Transportation to Different Types of Schools or Other Services

Exhibit C1 shows the percentages of students with disabilities who receive transportation services to different types of schools as well as other services, such as reimbursement to families. Exhibit C2 shows these percentages with their corresponding standard errors. A student with a disability can receive more than one type of service, i.e., he or she can receive transportation service to both a regular education school and a special education school. In this case, the student will be counted in both categories of service (regular education school and special education school).

SEEP data show that about 26 percent of students with disabilities receive regular home-to-school transportation, 7 percent are transported to special education schools, while another 2 percent are transported from one school to another to receive vocational or other special education services. Exhibit 1, earlier in the report, shows that around 33 percent of the students with disabilities receive district transportation services. The percentages in Exhibits C1 and C2 add up to more than 33 percent as students receiving more than one type of transportation service were included in each of the categories.

Exhibit C1. Percentage of Students with Disabilities Using Transportation to Different Types of Schools and Other Services, 1999-2000

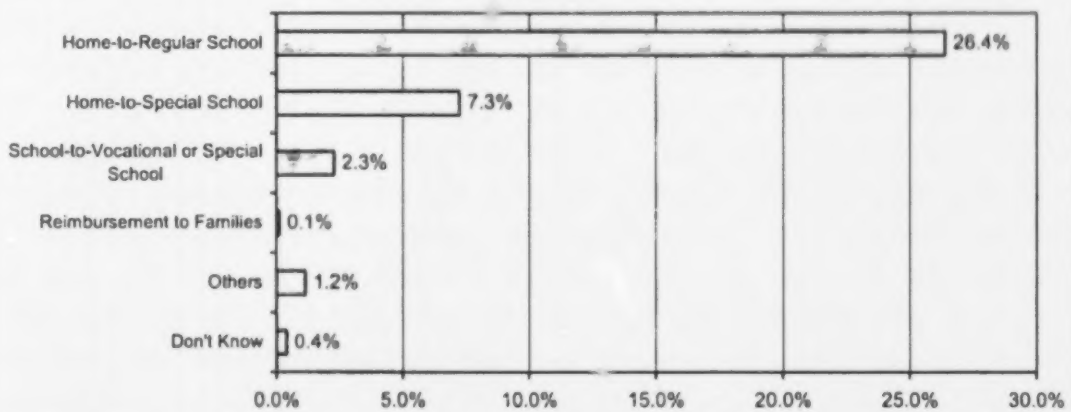

Exhibit C2. Percentage and Standard Error of Students with Disabilities Using Transportation to Different Types of Schools and Other Services, 1999-2000

Types of Transportation	Percentage of Students Transported	Standard Error
Home-to-Regular School	26.4%	2.7%
Home-to-Special School	7.3%	0.7%
School-to-Vocational or Special School	2.3%	0.7%
Reimbursement to Families	0.1%	0.1%
Others	1.2%	0.2%
Don't Know	0.4%	0.1%

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